

May 21, 2007

By Electronic and First Class Mail

Ms. Monica Harvey
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219



Re: Comments on Draft State Operating Permits
for the Control of SO₂ from the
Mirant Potomac River Generating Station

Dear Ms. Harvey:

Mirant Potomac River, LLC ("Mirant") is pleased to provide comments on (1) a draft state operating permit incorporating an updated version of Table 1 from the Administrative Consent Order between EPA and Mirant ("Option 1"), (2) a draft state operating permit as requested by the State Air Pollution Control Board ("Option 2"), and (3) an alternative draft state operating permit as requested by the State Air Pollution Control Board ("Option 3"). These comments include (i) a summary of the comments, (ii) a table comparing the different proposed draft state permits, (iii) background on how the proposed permits arose, (iv) comments specific to a fourth Mirant-suggested state operating permit ("Option 4") and (v) comments specific to the other three draft state operating permits.

I. Summary of Comments

The Board is considering proposed consent orders, as well as the proposed permits discussed herein, to address emissions from the Mirant Potomac River Generating Station ("PRGS" or "Facility"). As discussed in Mirant's comments on the proposed consent orders filed on May 4, 2007, which comments including all of the attachments and cross references we incorporate in this letter by reference, Mirant's goal is to balance its dual obligations to the environment and to the citizens of the Washington, D.C. area and Maryland to whom it supplies electricity. Simply put, additional information on the technological capabilities and air quality impact mitigation on certain projects proposed for the Plant must be collected before those obligations can be appropriately balanced and an operating permit that complies with the applicable regulations can be developed. Thus, this permit proceeding is premature. Moreover, the three proposed permitting options fail to establish a plan for a long-term, achievable solution for reducing the emissions and ambient air impacts from PRGS to address environmental

impacts. The appropriate mechanism to bridge the gap until that information is collected is a consent order with short-term emission limitations and a timetable for implementation of projects and studies that will enable by February of 2008 the development of an effective, appropriate, and protective operating permit with long-term limitations on all applicable pollutants that properly accounts for the proposed stack merge and possible stack height increase. Such a consent order has been negotiated by DEQ and Mirant ("the DEQ Consent Order") is ready to be executed.

If a state operating permit must be adopted, Mirant would urge the Board approve a fourth permitting option ("Option 4 Permit" that is contains the provisions of the proposed DEQ-Consent Order ("Consent Order") in providing a compliance schedule that allows for predictive modeling until projects can be implemented and limits developed that will protect the NAAQS. If the Board decides to issue an operating permit, Mirant requests a formal hearing prior to that issuance under the provisions of Va. Code § 2.2-4020 and 9 VAC 5-170-200.

The Consent Order or proposed Option 4 Permit would protect the NAAQS, provide a long-term plan for ensuring continued NAAQS protection, help to ensure that a stable, reliable energy source is available for the Washington, D.C. area, provide additional resource adequacy to the region (which is getting increasingly short on electric generation reserves), appropriately address the concerns raised by the City of Alexandria and some of its citizens and comply with applicable law. The Consent Order or proposed Option 4 Permit is the best option for protecting local and regional air quality concerns while at the same time ensuring a stable and reliable energy supply for the area. All of the other options both jeopardize the electrical supply of D.C. and conflict with an Order issued by the Department of Energy ("the DOE Order"), reduce generation in a region that is seriously in need of capacity, ignore relevant factors and leave significant gaps in addressing how the plant should be operated in the near term until the long term permit is developed. Therefore, those options are unlawful.

II. Summary of Mirant's Proposed Option 4 State Operating Permit and Comparison to the Three State Operating Permits Proposed

Provision	Option 1	Option 2	Option 3	Option 4 (The Mirant Option)
SO ₂ Controls Required	Trona injection system	Trona injection system	Trona injection system	Trona injection system
Ambient SO ₂ Monitoring (3-hour)	6 So2 monitors. no alarms	6 SO ₂ monitors SO ₂ monitor alert system if in any one hour the average concentration of SO ₂ at any of the 6 monitors is equal to or greater than 70% of the 3-hour SO ₂ NAAQS	6 SO ₂ monitors SO ₂ monitor alert system if in any one hour the average concentration of SO ₂ at any of the 6 monitors is equal to or greater than 70% of the 3-hour SO ₂ NAAQS	10 SO2 monitors SO ₂ monitor alert system if in any one hour the average concentration of SO ₂ at any of the 6 monitors is equal to or greater than 80% of the 3-hour SO ₂ NAAQS 4 PM 2.5 monitor sites

SO ₂ Monitoring (12-hour and average ambient concentration)	None	Same for 24 hour period and average ambient concentration	Same for 24 hour period and average ambient concentration	Same for 24 hour period and average ambient concentration
Predictive Modeling		Allows Predictive Modeling	Allows Predictive Modeling	Predictive Modeling until January 30, 2008
SO ₂ Emission Limitations	Various scenarios for each stack in Appendix 1, take effect immediately and indefinitely	Through 9/30/07: 1320 tons inclusive as mass emission rate 0.50 lbs/mmBTU (3 hour average) 338.0 lbs/hour 10/1/07 - 3/31/08: 2000 tons 0.40 lbs/mmBtu on 3-hour average 270.0 lbs/hour 4/1/08 on: 3500 tons/year 0.28 lbs/mmBtu on a 3 hour average 270.0 lbs/hour	Through 3/31/08: 3300 tons 1000.0 lbs/hour 4/1/08 on: 3500 tons/year 800.0 lbs/hour	Lower of 1) emissions required by predictive modeling or 2) 0.55 lbs SO ₂ /MMBTU heat input on a 24 hour block basis (midnight to midnight) or 0.50 lbs SO ₂ /MMBTU on a 30 day rolling average
Annual SO ₂ Limitation	Facility-wide emission limit for SO ₂ = 3813 tons/year	Facility-wide emission limit for SO ₂ = 3500 tons/year effective April 1, 2008	Facility-wide emission limit for SO ₂ = 3500 tons/year effective April 1, 2008	Facility-wide emission limits for SO ₂ = 8359 tons/year post stack merge
Control Technology Evaluation	None	None	None	Requires control technology evaluation for criteria pollutants (to be used in developing long-term limitations)
Model Evaluation Study	None	None	None	Requires continuation of model evaluation study
PM ₁₀	None	None	None	Requires control of PM ₁₀ emissions based on predictive modeling and sets maximum of 0.055 lbs/mmBtu for PM ₁₀ on 3 hour average basis
Stack Merge	None	None	None	Provisions requiring installation of stack merge project to reduce downwash

Operation during a line outage	None	None	None	During line outage situations, follow DOE Order and best air pollution control practices in Appendix 2, continue predictive modeling, continue operation of Trona injection system
Annual emission limitations on pollutants other than SO ₂	None	None	None	Sets annual emission limits for NO _x , Emission limitations: No more than 3700 tons NO _x /year No more than 1600 tons NO _x between May 1 - September 30 After Stack Merge Project, imposes annual limitations on SO ₂ , CO, VOC, PM, PM ₁₀ , PM _{2.5} . (D.26-28)

III. **Background.**

A. The Mirant Potomac River Generating Station.

The Facility was built in 1949. At that time, as a result of the Facility's proximity to the National Airport (now the Ronald Reagan National Airport), the Facility's five stacks were constructed to be 163 feet above ground level (197 feet above mean sea level). As a result of these shorter stacks, windy conditions can cause downwash — emissions are forced to ground level rather than rising.

Since the Facility was built, the City of Alexandria has allowed and continues to allow development in the vicinity, and the Facility is now surrounded by residential and commercial properties. High-rise condominium developments have been constructed that now look down on the Facility and its stacks. As a consequence of this development, Mirant must also operate constrained by limited space and access to transportation.

The City has also limited the options available to Mirant to address the concerns of neighboring citizens. For example, raising the height of the stacks by 50 feet would offer significant environmental benefits by alleviating the down wash problem. (*See* Attachment 1.) The FAA has approved raising the height of the stacks by 50 feet. (Attachment 2.) Nevertheless the City has opposed that stack height increase and has hired consultants to battle it. The FAA has rejected the City's request to reopen the issue (Attachment 3).

B. Procedural History.

Mirant has owned and operated PRGS since December 2000. In 2003, DEQ issued a notice of violation (“NOV”) against Mirant for allegedly exceeding the PRGS’s allocation of allowances for NO_x emissions. The enforceability of the allowance was in dispute since it purportedly allowed no allowance trading. Mirant, US EPA, Maryland and Virginia negotiated and executed a Consent Decree in 2005 to settle the alleged violations and provide for significant reduction of NO_x emissions from the Mirant plants in the Greater Washington, D.C. nonattainment area. Attachment 4. Mirant promptly took steps to comply with that Consent Decree. (The Decree was finally entered by the D.C. Circuit Court on April 20, 2007.) Since 2003, Mirant has not exceeded any of its applicable limitations.

As a result of the alleged 2003 permit exceedance, Mirant agreed to study PRGS’s emissions. In August 2005, modeling results were submitted to DEQ that suggested the PRGS SO₂ emissions contributed to modeled NAAQS exceedances. Mirant curtailed its operations by approximately 65%. On August 23, 2005, Mirant shut down PRGS until it could provide for a short-term solution to the emissions that were contributing to a modeled NAAQS exceedance.

PRGS was required to restart its operations by the Federal Energy Regulatory Commission (“FERC”) because its shutdown caused grid reliability issues for the power supply to the central business district of Washington, D.C., many federal buildings, Georgetown and parts of northwest Washington, the Blue Plains Wastewater Treatment Plant and Maryland.¹ Accordingly, Mirant resumed partial operation on September 21, 2005. On December 20, 2005, the United States Department of Energy (“DOE”) also issued an order directing Mirant to submit an operating plan to assure both electric system reliability and emission levels protective of the NAAQS. Mirant submitted that plan on December 30, 2005 and DOE issued a Supplemental Order on January 4, 2006 directing Mirant to comply with that plan. PJM and PEPCO both filed comments with DOE stating that Mirant’s operations under the plan would not provide the necessary reliability to the D.C. area. Accordingly, Mirant, EPA and DOE set forth to establish a plan that would protect the environment and the NAAQS, but still provide the necessary reliability of energy to the D.C. area.

EPA and Mirant entered into an Administrative Compliance Order by Consent (“ACO”) in June 2006 (Attachment 5) to address further Mirant’s emission levels and to develop emissions limits for the facility that protect the NAAQS. The ACO directs Mirant to comply with the DOE Order. The ACO expires on June 1, 2007 and anticipated that long-term operations protective of the NAAQS and ensuring reliable energy would be addressed by the DEQ. The ACO established two distinct operating scenarios under which Mirant operates: (1) line outage situations in which Mirant must follow load demand as required by the DOE Order, and (2) non-line outage situations in which Mirant uses predictive modeling to determine how

¹ While the plant serves many buildings operated by the federal government, it does not serve the White House or the Capitol.

much electricity it can bid to produce and on which Mirant can reduce to protect the NAAQS if the ambient air monitors (described below) were to detect levels of concern.

The ACO requires Mirant to install and operate monitors located where predicted impacts are highest to ensure that its emissions do not cause or contribute to an exceedance of the NAAQS. These monitors are linked to alarms that alert Mirant if ambient concentrations measured by the monitors reach 80% of the 3- or 24-hour NAAQS for SO₂. During non-line outage situations the alarms have never been activated. The results of the monitoring have indicated that, with the exception of one anomaly caused by weather conditions on February 23, 2007, **during a line outage**, the emission levels have been protective of the NAAQS. As this occurred during a line outage, Mirant did not have the option of reducing generation as it is required (pursuant to the DOE Order) to operate as directed by PJM during such outages. Indeed, Mirant would not have found itself in this position but for the DOE order, as the predictive modeling (described below) on that day would have called for much less generation than what was required by the DOE Order and PJM directives on that day.

The ACO also requires predictive modeling to ensure Mirant's operating levels are protective of NAAQS. In this modeling, Mirant uses the predicted weather conditions as inputs to model ambient impacts. The modeling is used to determine the operating level Mirant should employ while still protecting the NAAQS with a margin of safety. Thus, the monitoring and predictive modeling provide a "belt and suspenders" for environmental protection. However, as described above, during line outage situations (over which Mirant has no control), the DOE Order obligates Mirant to continue to operate irrespective of the concentration of the NAAQS pollutants.

On June 2, 2006, DOE modified its December 20, 2005 order requiring Mirant to run in accordance with the ACO. Although the ACO expires June 1, 2007, the DOE Order was recently extended and remains in effect until July 1, 2007, unless further extended by DOE. The ACO has responsibly balanced environmental protection and electrical reliability.

Since the ACO was signed in June 2006, DEQ's career professionals and Mirant have been working on terms of a state operating permit to control the Facility's air quality impacts over the long term. In particular, thousands of hours have been expended to develop appropriate modeling and monitoring requirements to protect the NAAQS. The modeling protocol for that effort is near completion. It is Mirant's understanding that DEQ intends to issue a permit before the end of 2007. At that time, the Stack Merge Project would be underway. In the meantime, DEQ and Mirant negotiated a draft consent order to govern plant operations during the period between the expiration of the ACO on June 1, and the issuance of the Permit. The consent order would provide standards and conditions for maintaining air quality while allowing Mirant to operate in a fashion that satisfies the requirements of the DOE Order and continuing obligations to facilitate reliable electrical supply in the region.

IV. General Comments on the Proposed Permitting Options

All three of the proposed permits are deficient for three reasons. First, any of the proposed permits would conflict with a DOE Order and likely would prevent Pepco from making its line upgrades. Second, insufficient technical data exists at this time upon which to base the proposed emissions limit. Finally, the proposed permits fail to further the legitimate long-term goal of developing a permanent, NAAQS protective, practically enforceable and legally supportable emission limitation regime under which PRGS can operate.

A. Conflict with DOE Order, Pepco Upgrades and Regional Reliability.

The best way to resolve the issues relating to PRGS is for DEQ to issue the short-term DEQ Consent Order during which a permanent operating permit can be developed and issued. Permit Option 1 would impose operating restrictions that would prohibit operation of the boilers to comply with the DOE Order. The permit terms in Options 2 and 3 have been proposed by the Board, without the benefit of DEQ's input or data based upon the changed Plant configuration, and are overly conservative and unnecessarily restrictive. If the permit conditions proposed by the Board are put into place as proposed, they likely would prevent Pepco from completing the line upgrades this summer. Without the flexibility provided by the Consent Order, Pepco likely will not be able to begin the last phase of the upgrades because it will not have the necessary redundancy PRGS provides. If the Board proceeds on its proposed course and Pepco were to take its line outage, the District of Columbia might be at risk of power failures and blackouts during the summer of 2007.

B. Lack of Sufficient Data.

The three proposed permits are arbitrary and capricious because there was no information provided on the manner in which the limits were developed or whether or not they are protective of the NAAQS. Moreover, the Board lacks sufficient data to develop effective, achievable emission limitations for a state operating permit that accounts all of the relevant factors. Before a long-term solution can be developed and implemented in an operating permit, data on technological feasibility of the pollution control equipment and protection of the NAAQS must be collected and evaluated. The DEQ Consent Order would provide the time and means for this data gathering. The DEQ Consent Order would require: (1) preparation of a report by an independent engineering consultant on feasible, available and achievable treatment technologies for the reduction of SO₂, NO_x and PM emissions; and (2) performance of predictive and "hindcast" computer modeling using actual weather conditions and operating parameters. These new requirements would be coupled with further reviews of the models and modeling parameter which has been the subject of ongoing, intense effort by the DEQ experts.² Collectively, the data generated by these studies will lead to the development of effective long-term emission

² We note that EPA recently approved use of equivalent building dimensions ("EBD") as an alternative modeling method to the default assumptions in AERMOD. (See Attachment 6.)

limitations in a state operating permit that will lead to an appropriate balance of the dual obligations Mirant must meet.. The Consent Order, not the proposed SO₂ operating permits, is the proper next step towards ultimately establishing a workable, comprehensive state operating permit.

C. Failure to Satisfy Goals.

The proposed permits will not enable long-term goals to be achieved. These long-term goals include developing effective, practical enforceable protection of air quality through three projects: (1) the Stack Merge; (2) the stack height increase; and (3) optimization of these air pollution control technologies. The Consent Order would account for these projects; the proposed permits would not.

1. The Stack Merge.

One of the projects that will enable Mirant to protect air quality is the Stack Merge Project. Mirant has proposed to merge the emissions from the two³ “cycling” or “swing” boilers at PRGS into one stack and to merge the emissions from the remaining three “base load” boilers into another stack. PRGS may also connect the two merged stacks to allow the plant, in certain operating situations, to utilize a single chimney to exhaust the flue gas. At the same time, a Trona injection system will reduce SO₂ emissions. The purpose of the “Stack Merge Project” is to increase the velocity of the stack gases, thereby increasing plume rise and reducing the possibility of downwash. There is no question that this is beneficial to air quality and the project should be completed as soon as planned outages allow. Modeling on the project demonstrates that air quality impacts from the combined stacks are greatly reduced when compared to the existing individual stack configuration. *See* “A Modeling Protocol to Compare Predicted Air Quality Impacts for the Proposed Merged Stacks Configuration with Air Quality Impacts for the Existing Stacks,” ENSR, August 2006 (Attachment 1).⁴ Moreover modeling of the merged stack configuration with all five units operating at maximum load and all five units at minimum load results in a modeled reduction of 50% in SO₂ concentrations and 31 % respectively as compared to the current stack configuration. The Stack Merge also results in lower concentrations in Virginia Maryland and the District of Columbia. But that schedule is contingent on the Mirant completing necessary contracts and ordering of equipment by June 15, 2007 such that the merge could be initiated in September and completed in early 2008. If that date passes without a decision, the project likely will have to be postponed until autumn of 2008, for completion in 2009, thus denying the citizens of Alexandria the benefits of this project for at least a full year. Mirant sought permission to complete the project last fall and was denied, largely due to

³ Mirant believes that no permit is required for the stack merge (*see* letter from Kevin Finto to David Paylor dated February 9, 2007 (Attachment 7) and letter from Robert Driscoll to Terry Darton dated July 21, 2006 (Attachment 8)).

⁴ GEP Stack height is 88.2 meters for PRGS.

opposition from the City of Alexandria, which still opposes the project because it will solve the local air quality problem and reduce the City's perceived leverage over Mirant. If the Stack Merge Project had been completed last fall, the monitored exceedance of February 23, during a line outage would not have occurred.

As EPA Region III advised in its letter of May 3, 2007 (Attachment 9), the Stack Merge Project would not constitute an unlawful "dispersion technique." (*See also* letter from Kevin Finto, Hunton & Williams to Mike Kiss, DEQ dated April 3, 2007 explaining why the Stack Merge is not a dispersion technique (Attachment 10).) The Virginia Air Pollution Control Regulations define "dispersion technique" to include combining exhaust gases from several existing stacks into one stack. 9 VAC 5-10-20, "Definition of Dispersion Technique," Section 1.c. However, the definition excludes the merging of exhaust gas streams where such merging is part of a change in operations that includes the installation of pollution controls and is accompanied by a net reduction in allowable emissions of a pollutant. 9 VAC 5-10-20 Section 2.b. Accordingly, the Stack Merge Project would not be considered a dispersion technique if it is accompanied by a net reduction in the allowable emissions of the pollutant for which the emission limit is being developed. *Id.* And this is exactly the case with respect to sulfur dioxide ("SO₂"), particulate matter ("PM") hydrogen fluoride ("HF") and hydrogen chloride ("HCl") emissions at PRGS as a result of the Trona system.

Further, a permit is not required for the Stack Merge Project. The project will not change the capacity of any unit, affect the operations, improve the efficiency, or cause any increase in the emissions of any pollutant at the plant. An emissions increase is necessary for a permit to be required. As this project will not increase emissions, Mirant could implement the project on its own. Instead, Mirant is working cooperatively with DEQ and the City to allow some input into how this project is implemented and voluntarily subjecting (through the proposed DEQ Consent Order) itself to specific emission reductions that must be achieved through this project.

The Stack Merge has been delayed, but it is accompanied by the reductions from the Trona system. The reductions in emissions from the Trona project are significant and are enforceable through the DEQ Consent Order. The resulting emissions of SO₂ are half of the previously uncontrolled rate, and, if the DEQ Consent Order is consummated, Mirant would be accepting emission limits that would restrict SO₂ emissions to that lower rate. Accordingly, the Stack Merge Project complies with the exception provided in 9 VAC 5-10-20 (definition of "dispersion technique") Section 2.b.(2) and Mirant may take credit for its air quality improvements in permit-related modeling. (April 10 Board Meeting Transcript at 27.) Letter from Judith Katz, EPA Region III to James Sydnor dated May 3, 2007. (Attachment 9)

2. Raising the Height of the Stacks.

Mirant has also proposed to raise the height of the stacks by 50 feet to reduce the potential for downwash. Modeling shows that this stack height increase coupled with the stack merge could eliminate any concern about downwash or NAAQS exceedances. *See* May 4, 2007 Letter from David Shea (ENSR) to David Cramer (Mirant) (Attachment 11). The Federal

Aviation Administration ("FAA") has approved this stack raise and determined that it will not result in a hazard to aeronautical navigation. (*See* Attachment 3). The City of Alexandria has opposed this stack height increase as it believes that it is more familiar with aviation safety than the FAA. The Consent Order allows time for the City and Mirant to come to agreement on this issue.

3. Optimizing the Air Pollution Control Equipment.

Mirant's third means of addressing long-term emissions limits is the technical optimization study that is described in the DEQ Consent Order or Option 4 but again is not addressed by the proposed permits. This study could be used as a basis for the emission limitations in an operating permit. The study would allow Mirant and DEQ to analyze the facts that influence emission levels, and to more accurately determine emission limitations that are as protective as possible while at the same time being regularly achievable, given the significant constraints on operations at PRGS and allowing the plant to operate economically.

V. Comments Specific to Proposed Options and Permit

While the DEQ Consent Order is by far the best mechanism for bridging the gap to a final, comprehensive operating permit for PRGS, Option 4 (Attachment 1) is the best option for implementing an operating permit at this time. Option 4 addresses emissions from the Facility in a more comprehensive manner. It provides a structure for setting long-term emission limitations for the facility and identifies the tools and projects that must be implemented to achieve those limitations. Options 1, 2 and 3 are not comprehensive in nature and do not adequately address implementation of emission control projects nor provide the public with information about the timing and details of those projects as well as imposing emission restrictions based on the expected benefits of those projects. Moreover, the three proposed permitting options fail to establish a plan for a long term, achievable solution for reducing the emissions and ambient air impacts from PRGS to address environmental impacts.

A. Intermittent Controls (Predictive Modeling).

In the public notice of the permitting options, the Board asked for comments concerning whether intermittent controls are allowed as part of a permit. Intermittent controls (otherwise known as predictive modeling) are a specific technique by which the rate that pollutants are emitted to the atmosphere is varied according to meteorological conditions and/or ambient concentrations. 40 C.F.R. § 51.101(n). There is no prohibition against providing for intermittent controls through a permit. Intermittent controls, however, can not be relied on in setting ultimate emissions limits. 9 VAC 5-40-20(I)(1)(b); 40 C.F.R. § 51.118(a).

The DEQ Consent Order appropriately uses predictive modeling in conjunction with Trona injection to control SO₂ in the short term until the Stack Merge is completed at the end of February 2008.. At that point in time, a permit developed by DEQ taking into account those projects would take effect. EPA guidance concerning intermittent controls provides that one

purpose of the limitation on use of intermittent controls is “to make sure stationary sources do not rely upon intermittent controls in order to avoid the application of feasible constant emission controls.” *Incorporating Emerging and Voluntary Measures in a State Implementation Plan (SIP)*, U.S. EPA, 10 (September 2004). The DEQ Consent Order and Option 4 properly use intermittent controls as a bridge to provide environmental protection until feasible constant emission controls are established. As explained in *Sierra Club v. EPA*, 719 F.2d 436, 440 (D.C. Cir. 1983) (citing to 123 Cong. Rec. 16,203 (1977)), legislative history supports the use of intermittent controls as long as they are not relied on as a “final means of compliance with the Clean Air Act’s requirements.” The use of intermittent controls as a step towards establishing feasible constant emission limits is properly provided for in the DEQ Consent Order and Mirant’s proposed Option 4.

B. The Stack Merge Project Reduces the Downwash Problem.

The Stack Merge will reduce the downwash problem and, for that reason alone, its prompt completion should be encouraged. Modeling shows that the near field and longer range effects will be to allow compliance with NAAQS. Dispersion modeling conducted by ENSR has shown the air quality benefits of the stack merge are significant when compared to modeling with single stacks. For example, when modeling five units operating at full load, stack merge results show an 80% improvement in air quality impacts over the same operating scenario with the existing five single stacks. *See e.g.* Attachment 1.

In conjunction with modeling currently underway, the Stack Merge will allow the DEQ to develop a regime of emission limitations that will protect the NAAQS in a way that is practically enforceable. This is a prime prerequisite for the development of a comprehensive Title V operating permit for the plant. Option 1 has a level of complexity that renders it not practically enforceable. Options 2 and 3 rely on intermittent controls to assure NAAQS protection. Thus, none of the three options proposed for consideration is lawful.

Moreover, the use of improved modeling as provided for in the DEQ Consent Order and the Option 4 permit is required by 40 C.F.R. Part 51 Appendix W which repeats as a mantra that the model which most accurately predicts the ambient concentrations is always sought. 40 C.F.R. App. W Section 1.0 d. These requirements are incorporated by reference into the applicable Virginia regulations. Because Options 1, 2 and 3 are not based on the improved modeling, they are not appropriate options.

C. Five-Minute SO₂ Data.

There has been some concern expressed about short-term SO₂ exposures. Mirant has been in discussions with the Agency for Toxic Substances and Disease Registry (“ATSDR”) about these issues. As a matter of permit issuance the question is the protection of the NAAQS. EPA has considered whether a NAAQS based on a five-minute exposure is necessary and answered the question in the negative. There is no NAAQS based on a five-minute exposure and therefore it is not a relevant consideration in this permit proceeding. 40 C.F.R. § 50.5. EPA is

currently performing its periodic review of the NAAQS and expects to have that completed in 2009. Mirant will also continue to cooperate with ASTDR's review of short-term SO₂ exposures.

D. Technical Support for Option 4 over Options 1, 2 and 3.

The emission limits and temporary predictive modeling provided for in Option 4 will protect the NAAQS. Those emission limits are less than the applicable restrictions under Virginia Law under Rule 4 of the regulations and the applicable operating permit for NO_x. The limits in Option 4 are also lower than the potential to emit of the units as identified in the Form 7 application submitted on August 29, 2006, which is incorporated by reference.

The DEQ Consent Order and Option 4 impose significant restraints on PRGS's ability to operate in order to protect the NAAQS. Nevertheless they will allow the plant to operate in a more competitive and efficient manner than the artificial, overly conservative limits imposed by the three other operating permit options. The plant will still be able to bid in on electrical demand under the rules of PJM on non-line outage days. The market will determine if PRGS's price is competitive and whether it in turn will operate. Thus, those options preserve competition consistent with environmental protection. In contrast, if PRGS is artificially constrained as provided for in the three proposed operating permits, PRGS will be able to offer less energy to the grid, requiring higher-priced energy to fill the void. This is contrary to public policy.

Option 4 also allows the Plant to operate more efficiently. Every plant has its "sweet spot" and, for PRGS, it most efficiently operates at full load for each unit MW range. Options 1, 2 and 3 impose operating restrictions that eliminate PRGS's ability to facilitate efficient operations of its units. Moreover, as discussed in more detail below, Options 1, 2 and 3 restrict the operation of the Plant artificially and beyond what is required for NAAQS protection. Thus, the proposed limits in the three options would destroy the competitiveness and efficiency of the plant.

Option 4 also represents efforts Mirant has taken to reduce actual emissions on its own initiative. These efforts include the Trona injection system. Trona has been tested under the Department of Energy Clean Coal program at plants in Colorado and Florida for SO₂ and mercury control. Based on the experience under this DOE initiative, as well as tests on other sorbent technologies, Mirant determined that Trona was the appropriate sorbent injection process for controlling SO₂ emissions at the Plant. This is, in part, due to the large electrostatic precipitators which react with the Trona and achieve a higher rate of capture. Mirant has spent millions of dollars to develop its system, which is only one of three in operation on a coal fired plant and the only one on a bituminous plant of its size. In addition, Mirant has reduced the sulfur content of the coal it burns at the Facility. Finally Mirant has done the installed separated overfire air and low Nox burners to reduce Nox emissions. The limitations proposed in permitting Options 1, 2 and 3 would require PRGS either to operate at a capacity factor of about 70% or to achieve emission levels of between 0.30 to 0.24 lbs SO₂/ MMBTU. This in turn would require an SO₂ reduction rate of 70% at all times. Solvay indicates that the three plants

other than PRGS using it for SO₂ control are achieving 45 to 50% removal. *See* letter dated May 18, 2007 from John Maziuk to David S. Cramer (Attachment ____). Thus, the proposed emission limitations are technically infeasible.

Option 4 is the only operating permit alternative that allows the Plant to operate during line outage situations as required by the DOE Order. None of the others provide the operating flexibility necessary to ensure that PRGS can follow load. It also provides for the greatest reliability of the electrical system in the region in non-line outage situations. This reliability has a high social and economic value that far outweighs any benefit imposed by the punitive limits in Options 1, 2 or 3. Similarly the character and degree of injury to or interference with safety, health or the reasonable use of property threatened by Options 1, 2 or 3 is far greater than that associated with Option 4. *See* Klein Keeney report previously provided as Attachment 16 to May 4 comments to DEQ Consent Order.

E. Technical Flaws in Options 2 and 3

The specific limitations suggested in Options 2 and 3 are not feasible. They preclude the units at PRGS from reaching full load. For example, the 338 lb/hr limitation for SO₂ on a three hour block basis per boiler in the Option 2 June 1 - September 30 period equates to 70% load at 0.50 lb/MMBtu SO₂ emission rate. This has the effect of derating all of the units to 61-71 MW. Setting unit-specific pound per hour emission rates does not give any additional environmental protection, but creates a significant economic hardship for the facility.

Likewise, the combined three hour emission limits for all 5 boilers do not allow enough flexibility for the plant to handle any unit upsets or Trona flow interruptions. The short-term nature of this limitation is not realistic, and there is no basis for imposing it.

The restriction on emissions during the ozone season are even more restrictive. For example, the 1320 tons per ozone season specified in Option 2 is very close to the alarm response rate of 700 lb/hour. The result is that after constraining the units to 70% load or less, the permit would also constrain the hours of operation of the plant to 55% of historical output.

With respect to Option 3, the pounds per hour average of 1000 lb/hr on a three hour block basis for all five units allows for more operational flexibility, however, the limit is lower than in Board Option 2. In order to reach full load on all five units, they would have to hit an SO₂ rate of 0.21 lb/MMBtu. Even if only the three base load units were running, they would have to operate at 0.35 lb/MMBtu in order to reach full load and comply with the 1000 lb/hr limit. Alternatively, all five units could run at minimum load at 0.55 lb/MMBtu and comply with 1000 lb/hr. If all five units were running when an alarm goes off, the 700 lb/hr limit for the plant would equate to an SO₂ emission rate of 0.24 lb/MMBtu.

For five units to reach full load and comply with the proposed limitation of 800 lb/hr, each unit would have to achieve an SO₂ emission rate of 0.17 lb/MMBtu. If only the three base

load units ran, they could comply with 800 lb/hr by achieving a 0.28 lb/MMBtu SO₂ emission rate. No basis has been provided for requiring the plant to achieve this emission rate.

Finally, both options require implementation of an alarm triggered when emissions reach 70% of the NAAQS. No technical basis for this trigger has been provided. The alarm system proffered by Mirant, triggered when emissions reach 80% of the NAAQs is sufficiently protective.

In addition to concerns about the emission limitations proposed in Options 2 and 3, there are technical concerns about with many of the other provisions. The opacity limitation proposed in Options 2 and 3 is more stringent than in the current permit with no explanation given for this change. The maximum heat content of coal and maximum ash content conditions are not acceptable because these values varies widely and are typically expressed as an average limitation rather than a maximum. The requirement to obtain a fuel certification is unclear. Currently, the facility obtains a laboratory analysis of every coal delivery. Is this condition intended to require more than that? It is unclear what is intended by this requirement.

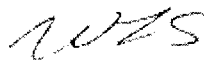
Options 2 and 3 developed by the Board are not based on compliance with the NAAQS. Instead, they serve to constrain plant output with no correspondence environmental benefit. Accordingly, these options should not be adopted as an operating permit for PRGS.

VI. Conclusion.

It is premature to approve an operating permit for PRGS at this point in time. The DEQ Consent Order provides short term requirements while pollution control projects and modeling are completed and long-term emission limitations are developed is the most efficient, effective, and appropriate way to resolve the issues at the Facility. If the Board determines that a permit should be approved now, Mirant urges the Board to issue Option 4 for the reasons discussed herein and in any event requests a hearing on any permit to be issued by the Board.

Thank you for your time and consideration.

Sincerely,



Walter L. Stone

cc: Michael Dowd, Esq.
Attachments